PATENT ABSTRACTS OF JAPAN

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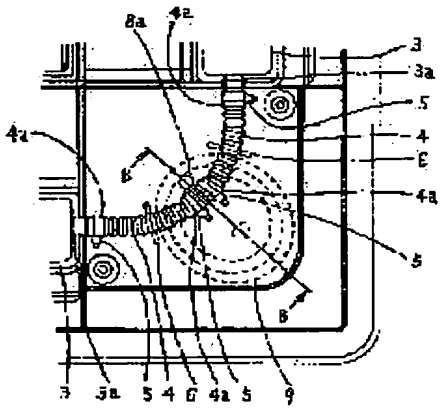
(54) CEILING-EMBEDDED-TYPE AIR-CONDITIONING EQUIPMENT

(57)Abstract:
PROBLEM TO BE SOLVED: To facilitate assembly and to reduce the number of parts by connecting the rotation axis of a wind direction plate being adjacent to the three corner parts of a decorating panel by a hollow bellow-shaped tube being formed, for example, by resin, and by supporting the middle part of the bellow- shaped tube to the decorating panel so that it can be freely rotated.
SOLUTION: A cylinder part 4a where a circular axis hole that is the same as or slightly larger than a rotary axis 3a is formed at both ends of a bellow- shaped tube 4, and the axis hole is embedded and inserted into the rotary axis 3a. Then, the outer periphery of the cylinder part 4a is tied by a binder 5, thus collapsing and sealing the cylinder part 4a. The bellow-shaped tube 4 is embedded and inserted into the U-shaped groove of a rib 6 being formed in one piece at the three corner parts of a decorating panel 1. The bellow-shaped tube 4 is supported by the rib 6, thus connecting the tips of the rotary axes 3a of two wind direction plates 3 without twisting and positively transferring rotation force. A groove cam 9 is driven by a motor and a cam pitman is rocked, thus rotating the wind direction plate 3 by the bellow-shaped tube 4.



LEGAL STATUS

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CLAIMS

[Claim(s)]
[Claim 1] the neighborhood of a makeup panel -- an outlet -- preparing -- these outlets -- a wind direction -- the wind direction which the three corner sections of said makeup panel adjoin in the head-lining flush-type air conditioner which comes to prepare a modification plate, respectively -- the head-lining flush-type air conditioner characterized by connecting the rotation shaft of a plate by the bellows-like tube in the air fabricated by resin etc., and coming to support the middle of a said bellows-like tube on said makeup panel free [rotation].
[Claim 2] The cylinder object which protruded on one place of the three corner sections of said makeup panel the cam connecting rod which formed the spherule at the head, The rotation shaft of a wind back board with which this corner section adjoins is connected by said bellows-like tube. The head-lining flush type air conditioner according to claim 1 characterized by supporting the middle of a said bellows-like tube free [rotation] on said makeup panel, engaging the spherule at the head of said cam connecting rod with a grooved cam, and coming to drive this grooved cam by the motor.
[Claim 3] said wind direction -- the rotation shaft of a plate -- and -- or the cylinder part which formed the axial hole in the edge of said bellows-like tube while forming D cut in said cylinder object -- forming -- said axial hole -- said rotation shaft -- and -- or the head-lining flush type air conditioner according to claim 1 or 2 characterized by fitting in said cylinder object and coming to band together with a binder etc. in the periphery of said cylinder part.
[Claim 4] the configuration of said axial hole -- D cut configuration -- carrying out -- a coaxial hole -- said rotation shaft -- and -- or the head-lining flush type air conditioner according to claim 1 or 3 characterized by coming to fit in said cylinder object.
[Claim 5] said wind direction -- the head of the rotation shaft of a plate -- and -- or by forming the crevice where said stop pawl engages with the inner surface of the axial hole of said bellows-like tube edge, and engaging said stop pawl with this crevice, while forming a stop pawl at the head of said cylinder object said rotation shaft -- and -- or the head-lining flush type air conditioner according to claim 1 or 2 characterized by coming to stop said cylinder object and said bellows-like tube.
[Claim 6] The head-lining flush type air conditioner according to claim 1 to 5 which prepares the rib in which the slot where said bellows-like tube engages with said makeup panel was formed, and is characterized by coming to support the middle of said bellows-like tube to this rib.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to a detail more with respect to a head-lining flush type air conditioner at the configuration of the interlock of a wind back board.
[0002]
[Description of the Prior Art] drawing 11 shows the conventional head-lining flush type air conditioner -- as -- four wind directions -- as the device in which a plate 3 is interlocked -- each -- a wind direction -- the wind direction which forms universal fitting 20 at the head of rotation shaft 3a of a plate 3, and adjoins -- it was the configuration of having connected the universal fitting 20 of the axis end of a plate 3, and interlocking it with a shaft 21.
[0003]
[Problem(s) to be Solved by the Invention] However, with this configuration, it was [which it is called universal fitting] comparatively complicated, and since the device with many components mark was used, it was hard to assemble and there were problems, like cost is high. In this invention, in view of the above-mentioned trouble, it is easy to assemble and aims at offering a head-lining flush type air conditioner with few components mark.
[0004]
[Means for Solving the Problem] in order that this invention may solve the above-mentioned technical problem -- the neighborhood of a makeup panel -- an outlet -- preparing -- these outlets -- a wind direction -- the wind direction which the three corner sections of said makeup panel adjoin in the head-lining flush-type air conditioner which comes to prepare a modification plate, respectively -- the rotation shaft of a plate connects by the bellows-like tube in the air which fabricated by resin etc., and it has the composition which supported the middle of a said bellows-like tube free [rotation] on said makeup panel.
[0005] Moreover, the cylinder object which protruded on one place of the three corner sections of said makeup panel the cam connecting rod which formed the spherule at the head, the wind direction which this corner section adjoins -- the rotation shaft of a plate is connected by said bellows-like tube, the middle of a said bellows-like tube is supported free [rotation] on said makeup panel, the spherule at the head of said cam connecting rod is engaged with a grooved cam, and it has the composition of driving this grooved cam by the motor.
[0006] moreover, said wind direction -- the rotation shaft of a plate -- and -- or the cylinder part which formed the axial hole in the edge of said bellows-like tube while forming D cut in said cylinder object -- forming -- said axial hole -- said rotation shaft -- and -- or it fits in said cylinder object and has the composition of having banded the periphery of said cylinder part together with the binder etc.
[0007] moreover, the configuration of said axial hole -- D cut configuration -- carrying out -- a coaxial hole -- said rotation shaft -- and -- or it has composition fitted in said cylinder object.
[0008] moreover, said wind direction -- the head of the rotation shaft of a plate -- and -- or the thing which the crevice where said stop pawl engages with the inner surface of the axial hole of said bellows-like tube edge is formed, and is engaged with this crevice in said stop pawl while forming a stop pawl at the head of said cylinder object -- said rotation shaft -- and -- or it has the composition of having stopped said cylinder object and said bellows-like tube.
[0009] Furthermore, the rib in which the slot where said bellows-like tube engages with said

makeup panel was formed is prepared, and it has composition which supported the middle of said bellows-like tube to this rib.
[0010]
[Embodiment of the Invention] With the above configurations, it is easy to assemble and becomes a head-lining flush type air conditioner with few components mark.
[0011]
[Example] First, one example of this invention shown by drawing 1 thru/or drawing 8 is explained. In the center of the makeup panel 1 which turned to and installed the lower part in the head-lining side, inlet port 11 Form four outlets 2 which turned to a direction which is different on all sides [periphery section], and the wind back board 3 is formed in this outlet 2. The blower fan 14 which drives a filter 12 by the motor 13 up is formed in the top face of said inlet port 11. the air which formed the heat exchanger 15 in the periphery of the fan 14 of the broadcasting style, filtered and inhaled indoor air with said filter 12 from said inlet port 11 with said blower fan 14, and carried out heat exchange by said heat exchanger 15 -- said outlet 2 -- said wind direction -- with a plate 3, a wind direction is adjusted and it blows off. the wind direction fabricated by resin, such as ABS, -- rotation shaft 3a formed in the ends of a plate 3 is supported rotatable in bearing formed in the rear face of said makeup panel 1 of the both sides of said outlet 2. D cut 3b is formed at each head of rotation shaft 3a of two wind back boards 3 which three corner sections 1a of said makeup panel 1 is alike, respectively, and adjoin at the include angle of 90 degrees. Cylinder web materials, such as vinylchloride resin, are formed in the bellows-like tube 4 in the air in blow molding. To the ends of the said bellows-like tube 4, the periphery of said cylinder part 4a by banding together with a binder 5 by preparing cylinder part 4a in which said rotation shaft 3a and EQC, or a little axial hole big 4[circular] b was formed, and fitting said axial hole 4b in said rotation shaft 3a Crushing and said D cut 3b become a baffle, and said cylinder part 4a fixes. The rib 6 in which slot 6a of slightly bigger U typeface than the appearance of said bellows-like tube 4 was formed is formed in one, and said bellows-like tube 4 is fitted in three corner sections 1a of said makeup panel 1 at slot 6a of U typeface of this rib 6. By supporting to said rib 6, said bellows-like tube 4 is connected without twisting between the heads of rotation shaft 3a of two wind back boards 3 which adjoin at said include angle of 90 degrees, and transmits the rotation force certainly. D cut 8c is formed in the ends of the cylinder object 8 which protruded on one place of three corner sections 1a of said makeup panel 1 cam connecting rod 8b which formed spherule 8a at the head. Said cylinder object 8, Rotation shaft 3a of the wind back board 3 which said corner section adjoins is connected by said bellows-like tube 4, respectively. By supporting the middle of the said bellows-like tube 4 free [rotation] with said rib 6 on said makeup panel 1, engaging spherule 8a at the head of said cam connecting rod 8b with slot 9a of a grooved cam 9, and driving this grooved cam 9 by the motor 10 Said cam connecting rod 8b rocks, and the wind back board 3 connected by said bellows-like tube 4 rotates. Moreover, since it is circular, even if the phase of axial hole 4b of said bellows-like tube 4 of D cut 3b of said rotation shaft 3a and D cut 8c of said cylinder object 8 does not suit, it can adjust at the time of assembly.
[0012] Next, other examples shown by drawing 9 are explained. The configuration of axial hole 4b formed in said cylinder part 4a differs from said example. Said rotation shaft 3a is made into an example, and is explained. The rotation force can be certainly transmitted only by inserting said rotation shaft 3a in said axial hole 4b by making into D cut configuration corresponding to D cut 3b of said rotation shaft 3a the configuration of axial hole 4b formed in said cylinder part 4a. In addition, also in this example, if the periphery of said cylinder part 4a is together banded with a binder etc., an omission can be prevented more certainly.
[0013] Next, other examples shown by drawing 10 are explained. said example -- said wind direction -- the stop approaches of rotation shaft 3a of a plate 3 and said cylinder object 8, and the bellows-like tube 4 differ. Said rotation shaft 3a is made into an example, and is explained. The stop pawl 7 which consists of two pillar-shaped sections 7b which projected in the shaft orientations of this rotation shaft 3a, and this pillar-shaped section 7b from lobe 7a which projected in the direction of a periphery of said rotation shaft is formed at the head of rotation shaft 3a of the aforementioned style back board 3 at one. On the other hand, two crevice 4c to

which said stop pawl 7 engages with the inner surface of cylinder part 4a of the ends of said bellows-like tube 4 is formed face to face. By inserting said stop pawl 7 in said cylinder part 4a, and pressing down lobe 7a of said stop pawl 7 from said cylinder part 4a periphery, the stop pawl 7 is bent by the elasticity of said pillar-shaped section 7b inside, and said cylinder part 4a fits in said rotation shaft 3a. If lobe 7a of said stop pawl 7 is inserted to the location of said crevice 4c, said lobe 7a will be caught in said crevice 4c with the elasticity of said pillar-shaped section 7b, and will be stopped. The rotation force is transmitted while preventing that said bellows-like tube 4 falls out from said rotation shaft 3a when said stop pawl 7 is caught in said crevice 4c.
[0014]
[Effect of the Invention] As explained above, according to this invention, it is easy to assemble and becomes a head-lining flush type air conditioner with few components mark.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the sectional view seen from the side face which shows the whole head-lining flush type air conditioner configuration by this invention.
[Drawing 2] It is the top view which looked at the makeup panel of the head-lining flush type air conditioner by this invention from the rear face.
[Drawing 3] It is the important section top view seen from the rear face which shows one example of the head-lining flush type air conditioner by this invention.
[Drawing 4] It is the important section top view seen from the rear face which shows one example of the head-lining flush type air conditioner by this invention.
[Drawing 5] It is the important section exploded view obtained from the rear face which shows one example of the head-lining flush type air conditioner by this invention.
[Drawing 6] It is the important section strabism exploded view showing one example of the head-lining flush type air conditioner by this invention.
[Drawing 7] It is the important section AA sectional view showing one example of the head-lining flush type air conditioner by this invention.
[Drawing 8] It is the important section BB sectional view showing one example of the head-lining flush type air conditioner by this invention.
[Drawing 9] It is the important section strabism exploded view showing other examples of the head-lining flush type air conditioner by this invention.
[Drawing 10] It is the important section strabism exploded view showing other examples of the head-lining flush type air conditioner by this invention.
[Drawing 11] It is the important section perspective view of the head-lining flush type air conditioner by the conventional example.
[Description of Notations]
1 Makeup Panel
1a Corner section

2 Outlet
3 Wind Back Board
3a Rotation shaft
3b D cut
4 Bellows-like Tube
4a Cylinder part
4b Axial hole
4c Crevice
5 Binder
6 Rib
6a Slot
7 Stop Pawl
8 Cylinder Object
8a Spherule
8b Cam connecting rod
8c D cut
9 Grooved Cam
10 Motor

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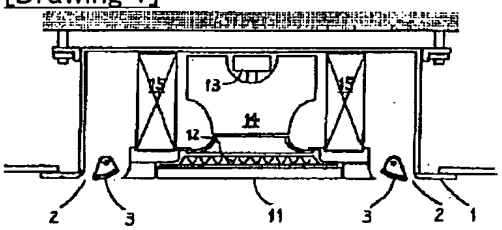
DRAWINGS

[Drawing 1]



[Drawing 2]

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審査請求　未請求　請求項の数６　ＯＬ　（全５頁）

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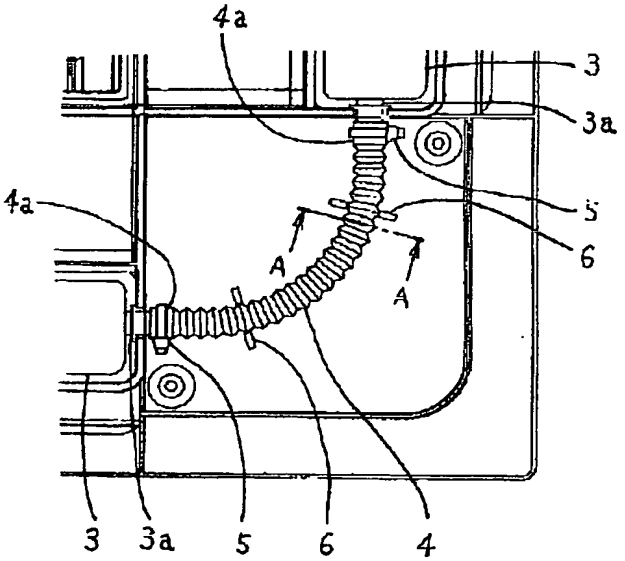
(54)【発明の名称】　天井埋込形空気調和機

(57)【要約】

【課題】　風向板を連動させる機構が、組立て易く、部品点数の少ない天井埋込形空気調和機を提供する。

【解決手段】　化粧パネル１の四辺に吹出口２を設け、これら吹出口２に風向変更板３を夫々設けてなる天井埋込形空気調和機において、前記化粧パネル１の三つのコーナー部１ａの隣接する風向板３の回動軸３ａを、樹脂等で成形した中空の蛇腹状チューブ４にて連結し、同蛇腹状チューブ４の途中を前記化粧パネル１に回動自在に支持した。



【特許請求の範囲】
【請求項１】　化粧パネルの四辺に吹出口を設け、これら吹出口に風向変更板を夫々設けてなる天井埋込形空気調和機において、
前記化粧パネルの三つのコーナー部の隣接する風向板の回動軸を、樹脂等で成形した中空の蛇腹状チューブにて連結し、同蛇腹状チューブの途中を前記化粧パネルに回動自在に支持してなることを特徴とする天井埋込形空気調和機。
【請求項２】　前記化粧パネルの三つのコーナー部の一箇所に、先端に球状体を形成したカム連接棒を突設した円柱体と、同コーナー部の隣接する風向板の回動軸とを前記蛇腹状チューブにて連結し、同蛇腹状チューブの途中を前記化粧パネルに回動自在に支持し、前記カム連接棒の先端の球状体を溝カムに係合し、同溝カムをモーターにて駆動してなることを特徴とする請求項１記載の天井埋込形空気調和機。
【請求項３】　前記風向板の回動軸および、または前記円柱体にＤカットを形成する一方、前記蛇腹状チューブの端部に軸穴を形成した筒部を形成し、前記軸穴を前記回動軸および、または前記円柱体に嵌挿し、前記筒部の外周を、バインダー等により結束してなることを特徴とする請求項１または請求項２記載の天井埋込形空気調和機。
【請求項４】　前記軸穴の形状をＤカット形状とし、同軸穴を前記回動軸および、または前記円柱体に嵌挿してなることを特徴とする請求項１または請求項３記載の天井埋込形空気調和機。
【請求項５】　前記風向板の回動軸の先端および、または前記円柱体の先端に係止爪を形成する一方、前記蛇腹状チューブ端部の軸穴の内面に前記係止爪が係合する凹部を形成し、同凹部に前記係止爪を係合することにより、前記回動軸および、または前記円柱体と前記蛇腹状チューブとを係止してなることを特徴とする請求項１または請求項２記載の天井埋込形空気調和機。
【請求項６】　前記化粧パネルに前記蛇腹状チューブが係合する溝を形成したリブを設け、同リブに前記蛇腹状チューブの途中を支持してなることを特徴とする請求項１乃至請求項５記載の天井埋込形空気調和機。
【発明の詳細な説明】
【０００１】
【発明の属する技術分野】本発明は、天井埋込形空気調和機に係わり、より詳細には、風向板の連動機構の構成に関する。
【０００２】
【従来の技術】従来の天井埋込形空気調和機は、図１１で示すように、四つの風向板３を連動させる機構として、各風向板３の回動軸３ａの先端に、ユニバーサル継手２０を設け、隣接する風向板３の軸端のユニバーサル継手２０を軸２１にて連結して連動させる構成であった。
【０００３】
【発明が解決しようとする課題】しかしながら、本構成では、ユニバーサル継手という比較的複雑で部品点数が多い機構を利用しているため、組立て難く、コストが高い等の問題があった。本発明においては、上記の問題点に鑑み、組立て易く、部品点数の少ない天井埋込形空気調和機を提供することを目的とする。
【０００４】
【課題を解決するための手段】本発明は、上記課題を解決するため、化粧パネルの四辺に吹出口を設け、これら吹出口に風向変更板を夫々設けてなる天井埋込形空気調和機において、前記化粧パネルの三つのコーナー部の隣接する風向板の回動軸を、樹脂等で成形した中空の蛇腹状チューブにて連結し、同蛇腹状チューブの途中を前記化粧パネルに回動自在に支持した構成となっている。
【０００５】また、前記化粧パネルの三つのコーナー部の一箇所に、先端に球状体を形成したカム連接棒を突設した円柱体と、同コーナー部の隣接する風向板の回動軸とを前記蛇腹状チューブにて連結し、同蛇腹状チューブの途中を前記化粧パネルに回動自在に支持し、前記カム連接棒の先端の球状体を溝カムに係合し、同溝カムをモーターにて駆動する構成となっている。
【０００６】また、前記風向板の回動軸および、または前記円柱体にＤカットを形成する一方、前記蛇腹状チューブの端部に軸穴を形成した筒部を形成し、前記軸穴を前記回動軸および、または前記円柱体に嵌挿し、前記筒部の外周を、バインダー等により結束した構成となっている。
【０００７】また、前記軸穴の形状をＤカット形状とし、同軸穴を前記回動軸および、または前記円柱体に嵌挿した構成となっている。
【０００８】また、前記風向板の回動軸の先端および、または前記円柱体の先端に係止爪を形成する一方、前記蛇腹状チューブ端部の軸穴の内面に前記係止爪が係合する凹部を形成し、同凹部に前記係止爪を係合することにより、前記回動軸および、または前記円柱体と前記蛇腹状チューブとを係止した構成となっている。
【０００９】更に、前記化粧パネルに前記蛇腹状チューブが係合する溝を形成したリブを設け、同リブに前記蛇腹状チューブの途中を支持した構成となっている。
【００１０】
【発明の実施の形態】以上のような構成にて、組立て易く、部品点数の少ない天井埋込形空気調和機となる。
【００１１】
【実施例】先ず、図１乃至図８にて示す、本発明の一実施例について説明する。天井面に下方を向いて設置した化粧パネル１の中央に吸込口１１を、外周部四辺に異なる方向を向いた四つの吹出口２を設け、同吹出口２に風向板３を設け、前記吸込口１１の上面にフィルタ１２

を、上方にモーター１３にて駆動される送風ファン１４を設け、同送風ファン１４の外周に熱交換器１５を設け、前記送風ファン１４にて、前記吸込口１１より室内空気を前記フィルタ１２にて沪過して吸込み、前記熱交換器１５にて熱交換した空気を前記吹出口２より、前記風向板３にて風向を調整して吹き出す。ＡＢＳ等の樹脂で成形した風向板３の両端に形成した回動軸３ａを、前記吹出口２の両側の前記化粧パネル１の裏面に形成した軸受部にて、回動可能に支持する。前記化粧パネル１の三つのコーナー部１ａの夫々にて９０°の角度で隣接する二つの風向板３の回動軸３ａの先端夫々にＤカット３ｂを形成する。塩化ビニール樹脂等の円筒シート材をブロー成形にて中空の蛇腹状チューブ４に形成し、同蛇腹状チューブ４の両端に、前記回動軸３ａと同等もしくは若干大きな円形の軸穴４ｂを形成した筒部４ａを設け、前記軸穴４ｂを前記回動軸３ａに嵌挿し、前記筒部４ａの外周をバインダー５にて結束することにより、前記筒部４ａがつぶれ、前記Ｄカット３ｂが回り止めとなり固着する。前記化粧パネル１の三つのコーナー部１ａに、前記蛇腹状チューブ４の外形より僅かに大きなＵ字形の溝６ａを形成したリブ６を一体に形成し、同リブ６のＵ字形の溝６ａに、前記蛇腹状チューブ４を嵌挿する。前記蛇腹状チューブ４は前記リブ６に支えられることにより、前記９０°の角度で隣接する二つの風向板３の回動軸３ａの先端の間を捩じれることなく連結し、回動力を確実に伝達する。前記化粧パネル１の三つのコーナー部１ａの一箇所に、先端に球状体８ａを形成したカム連接棒８ｂを突設した円柱体８の両端にＤカット８ｃを形成し、前記円柱体８と、前記コーナー部の隣接する風向板３の回動軸３ａとを夫々前記蛇腹状チューブ４にて連結し、同蛇腹状チューブ４の途中を前記化粧パネル１に、前記リブ６により回動自在に支持し、前記カム連接棒８ｂの先端の球状体８ａを溝カム９の溝９ａに係合し、同溝カム９をモーター１０にて駆動することにより、前記カム連接棒８ｂが揺動し、前記蛇腹状チューブ４にて連結された風向板３が回動する。また、前記蛇腹状チューブ４の軸穴４ｂが円形であるため、前記回動軸３ａのＤカット３ｂと前記円柱体８のＤカット８ｃとの位相が合っていなくても、組立時に調整することができる。

【００１２】次に、図９にて示す、他の実施例について説明する。前記実施例とは、前記筒部４ａに形成した軸穴４ｂの形状が異なる。前記回動軸３ａを例にして説明する。前記筒部４ａに形成した軸穴４ｂの形状を、前記回動軸３ａのＤカット３ｂに対応したＤカット形状とすることにより、前記回動軸３ａを前記軸穴４ｂに挿入するだけで確実に回動力を伝達することができる。なお、本例においても、前記筒部４ａの外周をバインダー等にて結束すれば、より確実に抜けを防止することができる。

【００１３】次に、図１０にて示す、他の実施例について説明する。前記実施例とは、前記風向板３の回動軸３ａおよび前記円柱体８と蛇腹状チューブ４との係止方法が異なる。前記回動軸３ａを例にして説明する。前記風向板３の回動軸３ａの先端に、同回動軸３ａの軸方向に突出した二本の柱状部７ｂと、同柱状部７ｂより前記回動軸の外周方向に突出した突出部７ａとよりなる係止爪７を一体に形成する。一方、前記蛇腹状チューブ４の両端の筒部４ａの内面に前記係止爪７が係合する凹部４ｃを対向して二箇所形成する。前記筒部４ａに前記係止爪７を挿入し、前記筒部４ａ外周より前記係止爪７の突出部７ａを押さえることにより、前記柱状部７ｂの弾性にて係止爪７が内側に撓み、前記筒部４ａが前記回動軸３ａに嵌挿する。前記係止爪７の突出部７ａが前記凹部４ｃの位置まで挿入されると、前記突出部７ａは前記柱状部７ｂの弾性により前記凹部４ｃに引っ掛かり係止される。前記係止爪７が前記凹部４ｃに引っ掛かることにより、前記回動軸３ａから前記蛇腹状チューブ４が抜けることを防止するとともに、回動力を伝達する。

【００１４】

【発明の効果】以上説明したように、本発明によれば、組立て易く、部品点数の少ない天井埋込形空気調和機となる。

【図面の簡単な説明】

【図１】本発明による天井埋込形空気調和機の全体構成を示す側面から見た断面図である。

【図２】本発明による天井埋込形空気調和機の化粧パネルを裏面から見た平面図である。

【図３】本発明による天井埋込形空気調和機の一実施例を示す裏面から見た要部平面図である。

【図４】本発明による天井埋込形空気調和機の一実施例を示す裏面から見た要部平面図である。

【図５】本発明による天井埋込形空気調和機の一実施例を示す裏面から見た要部分解図である。

【図６】本発明による天井埋込形空気調和機の一実施例を示す要部斜視分解図である。

【図７】本発明による天井埋込形空気調和機の一実施例を示す要部ＡＡ断面図である。

【図８】本発明による天井埋込形空気調和機の一実施例を示す要部ＢＢ断面図である。

【図９】本発明による天井埋込形空気調和機の他の実施例を示す要部斜視分解図である。

【図１０】本発明による天井埋込形空気調和機の他の実施例を示す要部斜視分解図である。

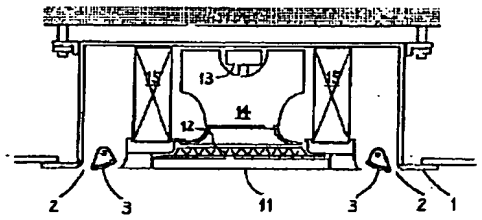
【図１１】従来例による天井埋込形空気調和機の要部斜視図である。

【符号の説明】

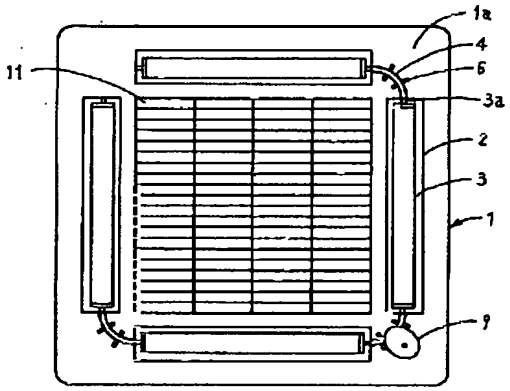
１　化粧パネル
１ａ　コーナー部
２　吹出口
３　風向板

３ａ　回動軸
３ｂ　Ｄカット
４　蛇腹状チューブ
４ａ　筒部
４ｂ　軸穴
４ｃ　凹部
５　バインダー
６　リブ
６ａ　溝
７　係止爪
８　円柱体
８ａ　球状体
８ｂ　カム連接棒
８ｃ　Ｄカット
９　溝カム
１０　モーター

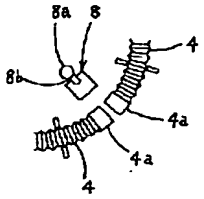
【図１】



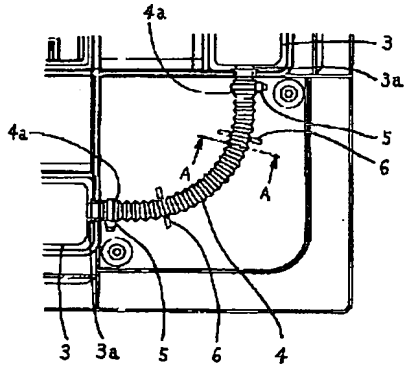
【図２】



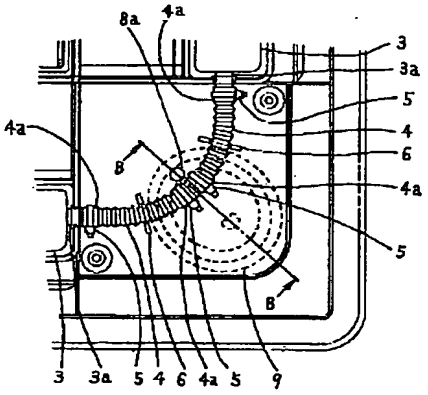
【図５】



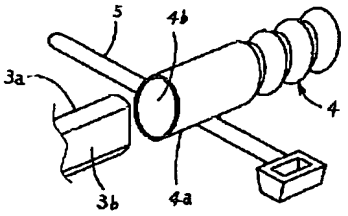
【図３】



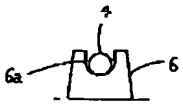
【図４】



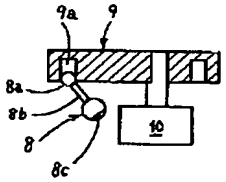
【図６】



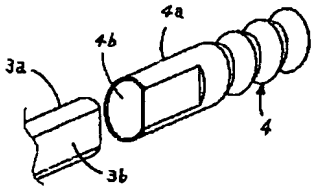
【図７】



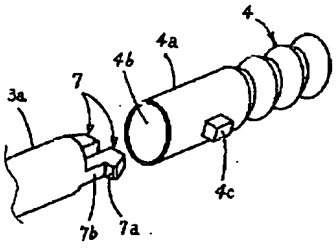
【図８】



【図９】



【図１０】



【図１１】